

August ¹⁰/₂, 1995

Operations Division
Operations Technical Support Branch

Mr. Andrew J. Kemmerer
Regional Director
National Marine Fisheries Service
Southeast Regional Office
9721 Executive Center Drive, North
St. Petersburg, Florida 33702-2449

Dear Mr. Kemmerer:

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The New Orleans District is forwarding, for your information, the Endangered Species Report for hopper dredge channel maintenance of the Mississippi River-Gulf Outlet (MR-GO), Louisiana, bar channel Spring 1995. This information was collected during MR-GO Fiscal Year 1995 channel maintenance. Maintenance dredging was conducted with the government hopper dredge the MCFARLAND. The MCFARLAND dredged between March 18, 1995, and May 10, 1995, in the MR-GO bar channel, between Mile -3.0 and Mile -9.0. The MCFARLAND was reassigned to the Mississippi River, Southwest Pass, prior to completion of work; however, maintenance of the MR-GO has not recommenced. While dredging in the MR-GO, the MCFARLAND was equipped with inflow screens and monitored by National Marine Fisheries Service-approved observers.

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This report is intended to assist your office in the continued review of hopper dredge activities in the New Orleans District, and complement information transmitted on July 20, 1995, by Mr. Robert Schroeder, Jr., of our Planning Division. If you have any questions regarding this report, please contact Ms. Beth Nord at (504)862-2504.

Sincerely,

Robert L. Tisdale
Chief, Operations Division

Enclosure

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MATHIES

OD-T

GUNN

OD-G

CLEMENT

OD-T

SCHROEDER
PD *ONE DAY*

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FINAL REPORT

ENDANGERED SPECIES MONITORING

MISSISSIPPI RIVER- GULF OUTLET
Maintenance Dredging
Spring 1995

Operations Technical Support Branch
U.S. Army Corps of Engineers
New Orleans District
504-862-2504

Scope of Work

Pursuant to U.S. Army Corps of Engineers Contract DACW29-95-M-0730 and MIPR W42-HEM-95-OD-015 a sea turtle monitoring program was conducted during maintenance dredging of the Mississippi River-Gulf Outlet (MR-GO). Maintenance dredging was conducted by the government dredge the MCFARLAND in the MR-GO between Mile -3.0 and Mile -9.0 non-continuously between 3/18/95 and 5/10/95. Dredging was stopped on 5/10/95 due to mechanical problems prior to completion of work. Following the repair of the MCFARLAND, the dredge was reassigned to the Mississippi River to replace the dredge WHEELER. Maintenance of the MR-GO has not recommenced as of 8/2/95.

Sea turtle monitoring was conducted under two separate contracts during this time period. During 3/18/95 - 3/28/95 and 4/1/95 - 4/12/95 turtle monitoring was conducted under MIPR W42-HEM-95-OD-014. Sea turtle observers were contracted through the U.S. Army Waterways Experiment Station and worked under National Marine Fisheries Service Endangered Species Permit #777. From the time periods of 4/15/95-4/25/95 and 4/29/95-5/10/95 sea turtle monitoring was conducted under US Army Corps of Engineers Contract DACW29-95-M-0730 by a private sea turtle observer company. Both the contract specification and the MIPR required that sea turtle observers, approved by the National Marine Fisheries Service, be aboard the dredge to provide twenty-four hour monitoring of impacts to endangered and protected sea turtles. Endangered species monitors for whales, bridge observers, were not required for either contract. In 1995, and previous years, the NMFS determined that listed whales are unlikely to be adversely affected by hopper dredging in the Gulf of Mexico. Therefore, bridge monitoring was not required in either contract.

A notification procedure was in place to insure notification of the New Orleans District, Operations Technical Support Branch in the event of a sea turtle take. In turn, the New Orleans District was equipped to consult with the National Marine Fisheries Service on a 24-hour a day basis.

Methodology

The methodology of the work described below is a summary of the MIPR scope of work (Appendix I), the specification language from Contract DACW29-95-M-0730 and daily, weekly and final reports from the sea turtle observers. For sea turtle monitoring conducted between 3/18/95 - 3/28/95 and 4/1/95 - 4/12/95, information sheets were completed for each load and a final report was submitted. For sea turtle monitoring conducted between 4/15/95- 4/25/95 and 4/29/95-5/10/95, daily and weekly summary sheets were completed.

All points of inflow were screened on the dredges before they began work at the Mississippi River-Gulf Outlet. This was

accomplished by re-installing previously fabricated rectangular cages on the discharge pipes. These cages are approximately 4' x 12' and 6' deep. The cages were constructed with steel rods and were designed to have 4" by 4" openings.

During 3/18/95 - 3/28/95 and 4/1/95 - 4/12/95 observers cleaned and inspected all inflow screening at the end of each load to rid them of debris and inspect them for turtle parts. The dragheads also were inspected. The dragheads were not inspected following each load, however, due to limited or a lack of sailing time between active dredging and dumping mode. Periodically the dredge would raise a draghead for inspection. Data sheets were completed at the end of each load detailing biological samples and debris found on the screening, weather, and position of the dredge. During this period, temperature data was not collected by the turtle observers but it was collected by dredging personnel and recorded in the dredge logs. The temperature information is included in the summary report (Appendix II). At the end of monitoring, load reports were forwarded to the New Orleans District (Appendix III).

During 4/15/95- 4/25/95 and 4/29/95-5/10/95 observers cleaned and inspected all inflow screening at the end of each load to rid them of debris and inspect them for turtle parts. The dragheads also were inspected after each dredge dump by the observer unless lifting the draghead was prohibited by safety conditions. Data sheets were completed at the end of each load detailing biological samples and debris found on the screening, weather, and position of the dredge. Water temperatures were measured at the end of each dredge cut. The turtle observers provided summaries of the load reports in daily and weekly summaries (Appendix IV).

Results

The dredge MCFARLAND worked from 3/18/95 - 3/28/95, 4/1/95 - 4/12/95, 4/15/95 -4/25/95 and 4/29/95 - 5/10/95. A total of 588 loads were monitored during dredging conducted from 3/18/95 - 3/28/95, 4/1/95 - 4/12/95. The total of 534 loads were monitored during dredging conducted 4/15/95 -4/25/95 and 4/29/95 - 5/10/95. During this dredging activity, approximately 1.5 million cubic yards of shoal material were removed from the channel. Shoal material consisted of sand, silts and clays.

Water temperatures ranged from 62 degrees to 70 degrees F between 3/18/95 and 4/12/95. Water temperatures ranged from 70 degrees to 81 degrees F between 4/15/95 and 5/10/95.

Clay, silt and woody debris were frequently encountered in the screens, however little biological material was collected. Rarely was dredging delayed due to clogging of inflow screening. Biological material removed from the screening included sharks, assorted species of rays, southern flounder, blue and spiny crabs, tonguefish, whelks and sea robins. No sea turtles were

observed either in the water or in the hopper during the monitoring period.

During this same period, there were 62 sightings of more than 118 Tursiops truncatus, the bottlenose dolphin. The dolphins typically were sighted in the channel and frequently were observed playing in boat wakes.

Discussion

Turtle movements in the Gulf of Mexico have been shown to be correlated to water temperature (Renaud and Carpenter 1995). Temperature conditions during the maintenance dredging activities were within the range of sea turtle tolerance. During this same period maintenance dredging also was being conducted in the Calcasieu River and Pass, LA., project bar channel. In the Calcasieu River and Pass, LA., bar channel, two sightings of sea turtles, one leatherback and one loggerhead, occurred in waters within the same temperature ranges.

The amount of debris collected on the screens was light and dredging infrequently was delayed by debris build up. Biological material also was collected during monitoring. This material did not contain sea turtle or suspected sea turtle parts. Although the screening was damaged by the end of the dredging, it appears that screening was effective in retaining biological debris and with the light debris loads it is unlikely that turtle parts would have been overlooked.

References

Renaud, M.L., and Carpenter, J.A., and Williams, J.A. 1995. "Movement of Kemp's ridley sea turtles Lepidochelys kempii near Bolivar Roads Pass and Sabine Pass, Texas and Calcasieu Pass, Louisiana (May 1994 through December 10, 1995). Preliminary Report submitted to the U.S. Army Corps of Engineers, New Orleans District.

Appendix I
MIR Scope of Work

7 March 1995

SCOPE OF WORK

MONITORING OF SEA TURTLE ENTRAINMENT BY HOPPER DREDGES
MISSISSIPPI RIVER GULF OUTLET CHANNEL

POINTS OF CONTACT:

Dave Nelson/Deborah Shafer (CEWESER-C)
Coastal Ecosystem Branch, Environmental Laboratory
USAE Waterways Experiment Station
Vicksburg, MS 39180
Phone # (601) 634-3816
FAX # (601) 634-4016

INTRODUCTION

The following scope of work is proposed for monitoring of sea turtle entrainment by the dredge McFarland during dredging in the Mississippi River Gulf Outlet Channel.

MONITORING ENTRAINMENT

Inflow screens, overflow screens, and each draghead will be inspected by the turtle observer during each return trip from the disposal site. Adjustments will be made in the inspection of screens and the dragarms to prevent any delays in dredging. Turtle observers will remove debris from the screens with the assistance of the ships crew. Observations by the turtle observers will be recorded on a standard data sheet which will be provided to the District at the completion of monitoring. Each turtle observer will be given a safety briefing prior to initiation of work by WES and will adhere to the safety regulations of the ship. The ship's captain will be responsible for informing turtle observers of safety precautions. Turtle observations will be made on a 24 hour basis during the dredging period. In general, the turtle observers will work a 12 hours on duty - 12 hour off duty schedule, however, adjustments in individual work schedules may be varied due to the dredge schedule, safety, weather, etc. The dredge will be required to provide quarters for turtle observers. Transportation to and from the dredge will be provided for observers by the New Orleans district. Transportation of turtle observers will be timed to coincide with regularly scheduled trips by the ship to the extent possible.

TURTLE HANDLING

If turtles or suspected parts thereof are discovered, they will be photographed by the turtle observer and kept on ice for

Verification by a trained sea turtle biologist. If an injured turtle is encountered, the turtle will be transported to the nearest facility for treating injured turtles. A NMFS certified sea turtle transport case will be provided by WES. Transportation will be provided by the New Orleans District.

PERMITS

Sea turtles and parts thereof will be collected under National Marine Fisheries Endangered Species Permit # 777 issued to David A. Nelson, USAE Waterways Experiment Station.

COORDINATION OF WORK

All aspects of the study will be coordinated with the U.S. Army Corps of Engineers District, New Orleans, the National Marine Fisheries Service, state resource agencies, and other appropriate technical personnel. Prior to monitoring, WES will notify district contacts and other appropriate agencies of their planned activities.

PRODUCTS

Any suspected take of turtles will be reported to New Orleans District by telephone as soon as possible after discovery. Results of the monitoring will be reported by telephone to New Orleans District immediately after completion of the monitoring. A data report documenting completed work will be provided to New Orleans District within 60 days after completion of monitoring.

SCHEDULE OF ACTIVITIES

Turtle observers will begin observations at the initiation of dredging in the Mississippi River Gulf Outlet which is currently scheduled to begin 18 March 1994. The New Orleans District will notify WES a minimum of 3 days prior to initiation of work and a minimum of 3 days before cessation of work.

COST ESTIMATE

Monitoring of hopper dredge sea turtle entrainment, Mississippi River Outlet Channel, 24 hours per day for 30 days.

\$1050.00 per day for 30 days

\$31,500.00